

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: MANFRED HUBINGER, ET AL - 1 PCT

APPL NO: 10/529,293

FILED ON: MARCH 25, 2005

TITLE: DISCONNECTION BOX FOR A ROBOT SYSTEM


MAIL STOP: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

S I R :

Applicant is enclosing the English version of the International Preliminary Examination Report with copy of cover sheet Form PCT/IB/338. It is respectfully requested that this International Preliminary Examination Report be incorporated into the official file of the present patent application.

Respectfully submitted,  
MANFRED HUBINGER, ET AL


BY:

  
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ENCL.: English version of the International Preliminary Examination Report with copy of cover sheet Form PCT/IB/338.

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: COMMISSIONER OF PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450 on July 18, 2005.

  
Maria Guastella

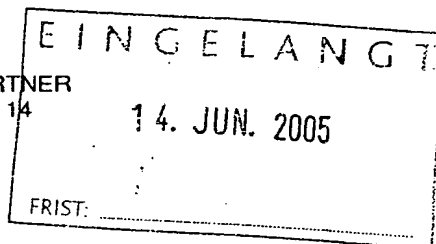
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NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

SONN & PARTNER  
Riemergasse 14  
A-1010 Wien  
AUTRICHE



Date of mailing (day/month/year) 09 June 2005 (09.06.2005)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference R 42167	
International application No. PCT/AT2003/000300	International filing date (day/month/year) 06 October 2003 (06.10.2003)
Applicant FRONIUS INTERNATIONAL GMBH et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

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3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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Translation

PATENT COOPERATION TREATY

PCT/AT2003/000300



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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference R 42167	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/AT2003/000300	International filing date (day/month/year) 06 October 2003 (06.10.2003)	Priority date (day/month/year) 08 October 2002 (08.10.2002)
International Patent Classification (IPC) or national classification and IPC B23K 9/28		
Applicant FRONIUS INTERNATIONAL GMBH		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 03 May 2004 (03.05.2004)	Date of completion of this report 11 January 2005 (11.01.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/IPEA/409 (cover sheet) (January 2004)

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# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AT2003/000300

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☒ The international application as originally filed/furnished
- ☒ the description:
- pages \_\_\_\_\_ 1-8 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* 1-11 received by this Authority on 15 October 2004 (15.10.2004)
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages \_\_\_\_\_ 1/5-5/5 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/AT 03/00300

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims	1-11	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

## 2. Citations and explanations

- 1 This report makes reference to the following document:

D1: PATENT ABSTRACTS OF JAPAN vol. 1996, no. 08, 30  
August 1996 (1996-08-30) & JP 8 090481 A  
(YASKAWA ELECTRIC CORP; NASU TOA KK), 9 April  
1996 (1996-04-09)

2 Claim 1

D1, which is considered to represent the prior art closest to the subject matter of claim 1, discloses (see figure 1 and paragraph 8):

shut-off box for a robot system with a coupling means (3, 5, 9, 7, 10) elastically mounted in a housing (2, 6) and connected to contact or switch elements (11), said means being designed to be connected to a burner body and a hose set or a burner handle connected to the hose set (23), wherein two apertures located opposite each other are provided in the housing, which consists of two parts, for connecting the coupling means to the burner body and for connecting the coupling means to

the hose set or the burner handle and wherein the coupling means has a bearing surface (top surface of 3) for localized siting (9, round-headed pins) on the housing (6).

The subject matter of claim 1 thus differs from the known shut-off box in that the bearing surface is connected to the contact or switch elements such that, by lifting the bearing surface off the housing, the contact or switch element is actuated or deactuate and a signal is transmitted from the contact or switch element to a connected control device or the robot system.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The problem addressed by the present invention may therefore be considered that of providing an autonomous shut-off box with an improved and more rapid response.

The solution proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)). The reasons are:

since the contact or switch elements are arranged directly on the bearing surface, a relative movement between housing and coupling means immediately triggers a control signal. (Conversely, in the prior art triggering is implemented indirectly via a rod, in consequence of which the mechanism lags and response time is therefore increased and sensitivity reduced.) This effect is not suggested by the prior art.

## 3. Claims 2-11

Claims 2-11 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and independent step.